

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions of claims in the application.

1. (Currently amended): A multilayer optical compensation film comprising one or more optically anisotropic layers X and one or more optically anisotropic layers Z wherein, said each layer X has its optic axis tilted with respect to the plane of said multilayer compensation film, and said each layer Z comprises amorphous polymer with glass transition temperature above 180C°, and satisfies the following two relations:

$$|n_x - n_y| < 0.001 \quad (1)$$

$$\Delta n_{th} = -n_z - (n_x + n_y)/2 < -0.005 \quad (2)$$

wherein:

“nx” and “ny” are indices of refraction in the film plane parallel to the x and y directions which represent orthogonal directions in the plane of the film;

“nz” is the index of refraction in the z-direction that corresponds to the film-thickness direction; and “Δn.th”, is the out of-plane birefringence,

wherein, one or more Z layers comprises a polymer ~~containing in the backbone a vinyl, carbonyl, amide, imide, ester, aromatic, sulfone, or azo group~~ selected from the group consisting of:

poly(4,4'-hexafluoroisopropylidene-bisphenol) terephthalate-co-isophthalate;

poly(4,4'-hexahydro-4,7-methanoindan-5-ylidene bisphenol) terephthalate;

poly(4,4'-isopropylidene-2,2',6,6'-tetrachlorobisphenol) terephthalate-co-isophthalate;

poly(4,4'-hexafluoroisopropylidene)-bisphenol-co-(2-norbornylidene)-bis-phenol

terephthalate;

poly(4,4'-hexahydro-4,7-methanoindan-5-ylidene)-bi-sphenol-co-(4,4'-isopropylidene-2,2',6,6'-tetrabromo)-bisphenol terephthalate;

poly(4,4'-isopropylidene-bisphenol-co-4,4'-(2-norbornylidene)bisphenol) terephthalate-co-isophthalate;

poly(4,4'-hexafluoroisopropylidene-bisphenol-co-4,4'-(2-norbornylidene)bisphenol) terephthalate-co-isophthalate and

copolymers thereof.

2. (Original): A multilayer optical compensation film according to claim 1 wherein, at least one X layer comprises positively birefringent material.

3. (Withdrawn): A multilayer optical compensation film according to claim 1 wherein, at least one X layer comprises negatively birefringent material.

4. (Withdrawn): A multilayer optical compensation film according to claim 1 wherein, the tilt angle θ of the optic axis with respect to the x-y plane of at least one X layer is constant in the thickness direction of the X layers.

5. (Original): A multilayer optical compensation film according to claim 1 wherein, the tilt angle θ of the optic axis with respect to the x-y plane of at least one X layer changes in the thickness direction of the X layers.

6. (Original): A multilayer optical compensation film according to claim 1 wherein, the azimuthal angle ϕ of the optic axis of at least one X layer is constant in the thickness direction of the X layers.

7. (Withdrawn): A multilayer optical compensation film according to claim 1 wherein, the azimuthal angle ϕ of the optic axis of at least one X layer changes in the thickness direction of the X layers.

8. (Original): A multilayer optical compensation film according to claim 1 wherein, the layers X and the layers Z are disposed on a substrate.

9. (Withdrawn): A multilayer optical compensation film according to claim 1 wherein, one or more adhesion promotion layers is disposed within the compensation film.

10. (Withdrawn): A multilayer optical compensation film according to claim 9 wherein, at least one of the adhesion promotion layers functions also as alignment layer.

11. (Withdrawn): A multilayer optical compensation film according to claim 9 wherein, at least one of the adhesion promotion layers functions also as barrier layer.

12. (Original): A multilayer optical compensation film according to claim 1 wherein, one or more alignment layers is disposed within the compensation film.

13. (Original): A multilayer optical compensation film according to claim 12 wherein, at least one of the alignment layers functions also as barrier layer.

14. (Withdrawn): A multilayer optical compensation film according to claim 1 wherein, one or more barrier layer is disposed within the compensation film.

15. (Withdrawn): A multilayer optical compensation film according to claim 1 wherein, one or more Z layers function as adhesion promotion layers.

16. (Withdrawn): A multilayer optical compensation film according to claim 1 wherein, one or more Z layers function as barrier layers.

17. (Original): A multilayer optical compensation film according to claim 1 wherein, one or more Z layers function as alignment layers.

18. (Withdrawn): A multilayer optical compensation film according to claim 1 wherein, one or more X layers function as adhesion promotion layers.

19. (Withdrawn): A multilayer optical compensation film according to claim 1 wherein, one or more X layers function as barrier layers.

20. (Original): A multilayer optical compensation film according to claim 1 wherein, one or more X layers function as alignment layers.

21. (Original): A multilayer optical compensation film according to claim 1 wherein, the thickness of each Z layer is from 0.1 to 20 μ m.

22. (Original): A multilayer optical compensation film according to claim 21 wherein, the thickness of each Z layer is from 1.0 to 10.0 μ m.

23. (Original): A multilayer optical compensation film according to claim 22 wherein, the thickness of each Z layer is from 2.0 to 8.0 μ m.

24. (Original): A multilayer optical compensation film according to claim 1 wherein, the thickness of said compensation film is less than 50 μ m.

25. (Original): A multilayer optical compensation film according to claim 24 wherein, the thickness of said compensation film is from 4 to 45 μ m.

26. (Original): A multilayer optical compensation film according to claim 25 wherein, the thickness of said compensation film is from 5 to 20 μ m.

27. (Original): A display comprising a) a liquid crystal cell, b) at least one polarizing element, and c) at least one optical compensation film according to claim 1.

28. (Withdrawn): A display according to claim 27 wherein, the liquid crystal cell is an Optically Compensated Bend mode cell.

29. (Original): A display according to claim 27 wherein, the liquid crystal cell is a Twisted Nematic mode cell.

30. (Withdrawn): A display according to claim 27 wherein, the liquid crystal cell is a Vertically Aligned mode cell.

31. (Canceled).

32. (Withdrawn): A multilayer optical compensation film according to claim 1 wherein, one or more Z layers comprises a polymer containing a non-visible chromophore group which includes a carbonyl, amide, imide, ester, carbonate, phenyl, naphthyl, biphenyl, bisphenol, or thiophene group.

33. Cancelled.

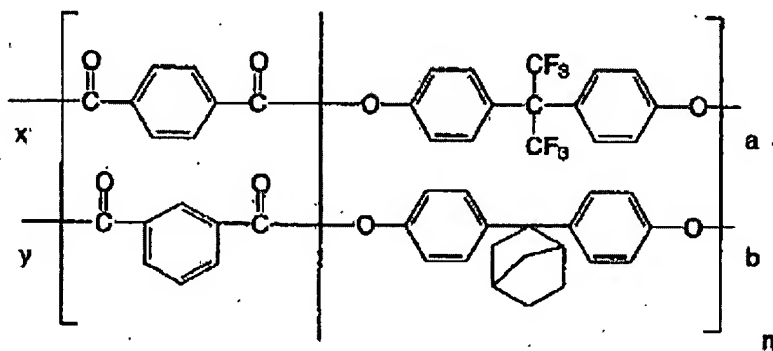
34. (Withdrawn): A multilayer optical compensation film according to claim 1 wherein, one or more Z layers comprises poly(4,4'-hexafluoroisopropylidene-bisphenol-co-4,4'-(2-norbornylidene)bisphenol) terephthalate-co-isophthalate or copolymers thereof.

35. (Original): A multilayer optical compensation film according to claim 1 wherein, the substrate of claim 8 is glass.

36. (Original): A multilayer optical compensation film according to claim 1 wherein, the substrate of claim 8 is comprised of triacetylcellulose, (TAC), cellulose acetate butyrate (CAB),

polycarbonate or cyclic polyolefin.

37. (New): A multilayer optical compensation film according to claim 1 wherein said polymer of said one or more Z layers is a poly(4,4'-hexafluoroisopropylidene-bisphenol-co-4,4'-(2-norbornylid-ene) bisphenol) terephthalate-co-isophthalate having the following chemical formula:



where $x = 90$, $y = 10$,

$a = 70$ and $b = 30$.